National Measurement Office Certification

UK 2977

V(0)a

EC type-approval certificate UK 2977

Issued by:

The National Measurement Office
Notified Body Number 0126

In accordance with the requirements of the Non-automatic Weighing Instruments Regulations 2000 (SI 2000/3236) which implement, in the United Kingdom, Council Directive 2009/23/EC, this EC type-approval certificate has been issued to:

CHG Hospital Beds Inc.
1020 Adelaide Street South
London, Ontario
N6E 1R6
Canada

In respect of a hospital bed, designated the Spirit Select, incorporating a Class III, non-automatic weighing instrument having the following characteristics:

Max = 250 kg
Min = 10 kg
e = 0.5 kg

The necessary data (principal characteristics, alterations, securing, functioning etc) for identification purposes and conditions (when applicable) are set out in the descriptive annex to this certificate.

Issue Date: 10 March 2014
Valid Until: 09 March 2024
Reference No: TS1201/0087

Signatory: P R Dixon
for Chief Executive

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UKAS PRODUCT CERTIFICATION 0135

National Measurement Office

Descriptive Annex

1 NAME AND TYPE OF INSTRUMENT

The CHG Hospital Beds Inc. instrument, designated the Spirit Select, is a hospital bed incorporating a Class III, mains operated, self-indicating, non-automatic weighing instrument (Figure 1).

2 DESCRIPTION

2.1 Construction

2.1.1 Mechanical

Main features:

- Main frame supported by four load cells located in the corners
- Main frame fitted on four wheels, with adjustable height
- Mattress deck with articulated head/knee/foot sections
- Footboard with user interface: operator keypad and LCD display (Figure 2)
- Head board, side rails with operator keypads

2.1.2 Devices

- Combined zero setting and tare balancing
- “Change equipment” function
- Zero indicator
- Net indicator
- Weighing window interlocks
- Sleep mode
- “Extended indication”: 0.01 kg resolution on command or for up to 5 s

2.1.3 Load cell

The four load cells are HBM load cells type K-SBSC3/500USAX-1, E_{max} = 500 lb.

2.2 Operation

2.2.1 Switch-on

At switch-on, a display test is performed to ensure that the display has no defect.

2.2.2 Combined zero setting and tare balancing

The device is operated via the “→ 0/T ←” key on the footboard user interface. The device operates as a semi-automatic zero-setting for loads within +/- 2 % Max, and as a semi-automatic tare balancing device for loads exceeding 2 % Max.

A N indication is displayed when the tare device is active.

2.2.3 Zero indicator

When the weight is within +/- 0.125 kg of zero (Gross or Net), the display shows “→ 0 ←”.

2.2.4 Change equipment device

When this function is selected, the weight display is blanked while the operator adds/removes equipment. The added/removed equipment weight is added to the tare weight, the net weight of the patient remains unchanged.

2.2.5 Over-range and under-range

If the load is less than Gross Minimum (10 kg), the display shows “Weight < 10 kg”. When the tare device is active Net weights are displayed below Minimum, with a “-” sign before the value for negative weights.

The instrument is set to display weight up to nine divisions above Max (Gross) or Max-T (Net). At greater loads the display shows ‘‘–––.–”.

2.2.6 Weighing window interlocks

The instrument will only display a weight indication if the bed is level, with the height of the main frame between 56 and 68 cm.

2.2.7 Extended indication

The weight indication can be displayed with 0.01 kg resolution by holding the “Function” key (bottom left) for 5 seconds, then selecting UTIL MENU/SCALE UTIL MENU/EXTENDED INDICATION. The extended weight indication is displayed continuously when the ENTER key is pressed and for up to 5 seconds once the ENTER key is released.

3 TECHNICAL DATA

3.1 Specifications

Accuracy class	III
Maximum capacity, Max	250 kg
Minimum capacity, Min	10 kg
Verification scale interval, e =	0.5 kg
Maximum tare, T =	- Max
Power supply	230 VAC, 50 / 60 Hz
Operating temperature range	+5 °C to + 35 °C

3.2 Documentation

Document/ Drawing No.	**Description**
470007 rev A	User interface
38023-18 Rev B	Electrical schematics
DAT00361 Rev 0	Load cell data sheet
280014	Scale box sealing method
1-70-001	User manual

3.3 Software

3.3.1 Software identification

The legally relevant part of the software is designated the Scale Module, the non-legally relevant parts are designated the Master Controller CB10/CB11, Motor Controller CB09 and Footboard Staff Control.

The Scale Module identification can be displayed via the Service menu, and shall be as follows: SCALE VER v1.5

3.3.2 Security

The Scale Module software and legally relevant parameters can only be modified by accessing the scale board, housed in a sealed enclosure (see section 6.2).

4 PERIPHERAL DEVICES AND INTERFACES

4.1 Interfaces

The instrument is fitted with the following interface types:

- 37-pin patient station
- ¼" Nurse Call
- Ethernet
- USB (for download of non-legally relevant software only)

4.2 Peripheral devices

The following peripheral devices may be connected to the interfaces provided:

- Peripheral devices that have been issued with a test certificate by a Notified Body responsible for type approval under Directive 2009/23/EC; or
- Peripheral devices without a test certificate under the following conditions:
  - it bears the CE marking for conformity to the EMC Directive;
  - it is not capable of transmitting any data or instruction into the weighing instrument, other than to release a printout, checking for correct data transmission or validation;
  - it prints weighing results and other data as received from the weighing instrument without any modification or further processing;
  - it complies with the applicable requirements of EN45501, i.e. 4.2, 4.4, 4.6 and 4.7.

A printing device may print additional information such as date or number to identify the printed weighing result(s) or sets of weighing results.

5 APPROVAL CONDITIONS

This certificate is issued subject to the following conditions:

5.1 Legends and inscriptions

5.1.1 The instrument bears the following legends on or near the display:

Max
Min
e =

5.1.2 The instrument shall bear the following legends, located on the footboard bracket (Figures 3 and 4):

Accuracy class
CE marking
Green M
Serial number
Manufacturer's mark or name
Certificate number
Temperature range

The markings and inscriptions shall fulfil the requirements of Paragraph 1 of Annex IV of the Directive 2009/23/EC.

6 LOCATION OF SEALS AND VERIFICATION MARKS

6.1 The data plate is secured, either by sealing or by being of a form such that it is destroyed when removed.

6.2 Access to the load cells connection and scale board is prevented by sealing the "scale box" located under the bed (see drawing 280014). The scale box is secured by tamper-evident labels, bearing a securing mark. The securing mark may be either:

- a mark of the manufacturer and/or manufacturer's representative, or
- an official mark of a verification officer.

6.3 Verification marks, and the CE-marking, are located on, or adjacent to, the data plate situated at the back of the display.

7 ALTERNATIVES

There are currently no authorised alternatives.

8 ILLUSTRATIONS

Figure 1 Spirit Select
Figure 2 User interface
Figure 3 Rating plate example
Figure 4 Rating plate location

9 CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
UK 2977	10 March 2014	Type approval first issued.
-	-	No revisions have been issued

Figure 1 Spirit Select

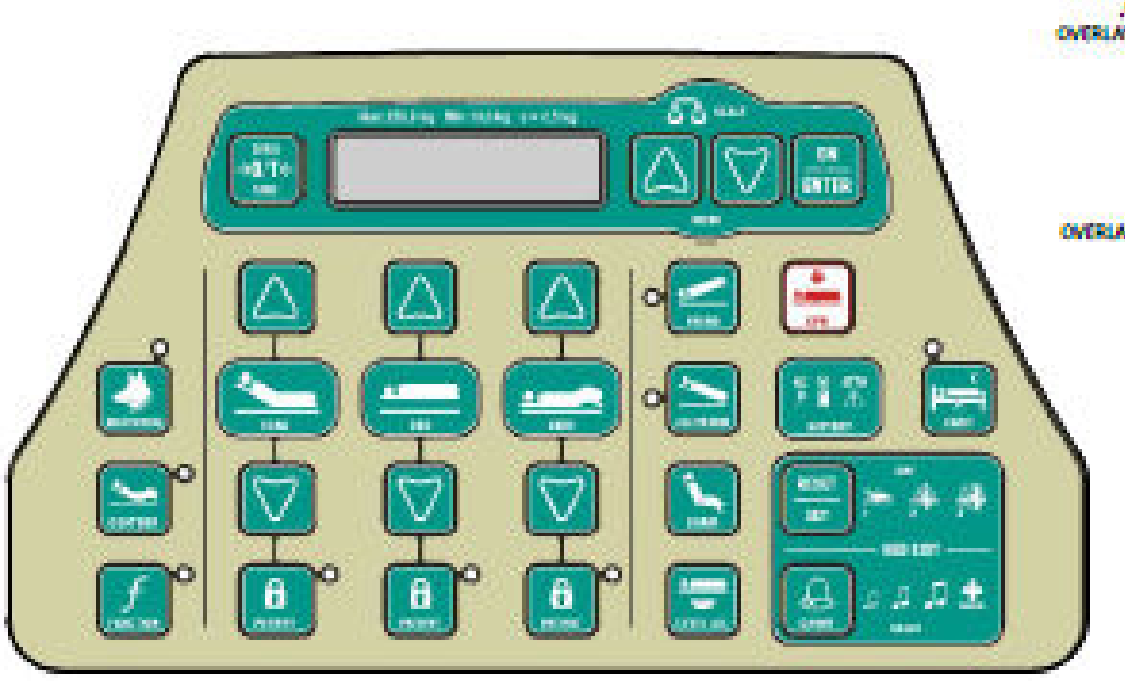

Figure 2 User interface

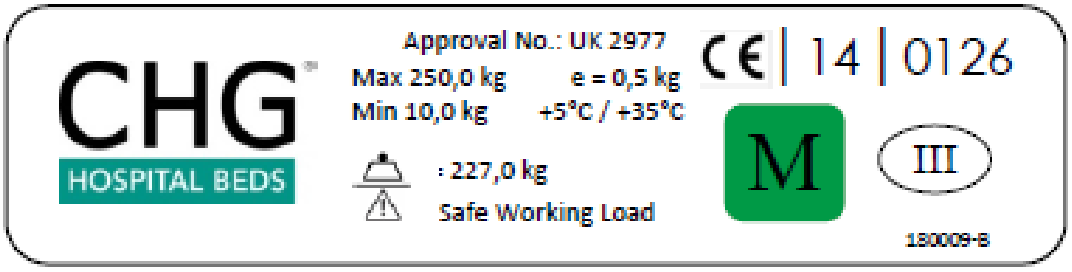

Figure 3 Rating plate example

Figure 4 Rating plate location

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